

REMARKS

Claims 25-46 are pending in this application. All previous claims are cancelled herein and new claims 25-46 are presented for examination. The Applicants respectfully thank the Examiner for his time during the telephonic interview with Erik Swanson on 2/7/08, in which the Examiner maintained that the prior art interpretation reads on the claimed limitations of Claim 1.

Canceled claims 1-3, 5-17, and 21-24 were rejected under 35 U.S.C. § 102(b), the Examiner contending that these claims are anticipated by U.S. Patent No. 6,261,053 to Anderson et al. ("Anderson").

New independent claim 25 is directed to an engine turbine section having a longitudinally-extending shaft with at least one blade rotatably attached thereto (the blade is constructed and arranged to generate a flow of working fluid having a radially-outward component during operation) and outer air seal segments proximate to, but spaced radially away from, a tip of the blade; the outer air seal segments are constructed and arranged to form an interface gap characterized by a radially-aligned portion and a radially-skewed portion, wherein said radially-skewed portion is formed by complementary, substantially-planar radially-inward portions of adjacent seal segments, wherein the radially-skewed portion of the interface gap is constructed and arranged to redirect the radially-outward component of the working fluid. Moreover, the first and second outer air seal segments are characterized by radially-outward boundary surfaces and opposite radially-inward boundary surfaces (each of said radially-inward boundary surfaces being radially spaced apart from said central axis by a predetermined first distance), and the radially-outward component of said working fluid is directed toward said radially-inward boundary surfaces. With this arrangement, the first and second outer air seal

segment provide an interface gap that is constructed and arranged to change direction of the radially-outward component of working fluid leaving the tip of the blade.

Anderson does not disclose a blade constructed and arranged to generate a flow of working fluid having a radially-outward component directed toward radially-inward boundary surfaces spaced apart from the blade, with a seal assembly interface gap radially-skewed portion formed by complementary, substantially-planar radially-inward portions of said adjacent seal segments, which is constructed and arranged to change direction of the radially-outward component of working fluid leaving the tip of the blade. In fact, although Anderson discloses use of a blades, such use is as a blade platform joined with the blade – not as a seal member spaced apart from the blade, as in the claimed invention. Additionally, although Anderson discloses radially-skewed and radially-aligned portions, Anderson does not include a gap radially-skewed portion formed by complementary, substantially-planar radially-inward portions. Furthermore, although Anderson deals primarily with longitudinal flow between turbine blades, and not radial flow leaving turbine blades, even if radially-directed fluid would somehow flow through the Anderson interface gap, the so-called skewed portion of the Anderson gap, the skewed portion would not change the direction a radially-directed component of the fluid – the fluid would simply pass radially outward between the adjacent seal members – the Anderson seal members simply do not include gap complementary, substantially-planar portions that would interfere with radial flow or a working fluid. (See Figs. 4, 5, 6a, 6b, 6c, 13, and 14). Anderson simply does not teach or suggest the claimed invention.

Claim 28 and 43 are directed to an engine turbine section having a seal assembly arrangement including the feature of a substantially-uniform contour along the longitudinal span between seal member front boundary surfaces and said rear boundary surfaces. Anderson does

not teach such an arrangement. In fact, the Anderson interface gap contours may completely reverse location along the span between the seal member longitudinally-front and longitudinally-rear; the contours can even and can reduce to zero in some sections. (See Col. 2, Lines 12-55 and Figs. 3, 7, and 8).


In view of the above, the Applicant respectfully submit that independent claims 25 and 43 are patentable. The Applicant further submits that dependent claims 26-42 and 44-46 are also patentable at least based on their dependency from their respective base claims, as well as based on their own merit. Therefore, Applicant respectfully requests that the Examiner pas these new claims to allowance.

Conclusion:

Applicants respectfully request allowance of the present application in view of the foregoing amendments and arguments. The Commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including the fees specified in 37 C.F.R. §§ 1.16 (c), 1.17(a)(1) and 1.20(d), or credit any overpayments to Deposit Account No. 19-2179.

Dated: 3/13/08

Respectfully submitted,

By: 
Erik C. Swanson
Registration No. 40,194
(407) 736-5602

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, New Jersey 08830